



Carolina Power & Light Company

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OCT - 4 2000

James Scarola
Vice President
Harris Nuclear Plant

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

SERIAL: HNP-00-142
10CFR50.4
10CFR50.59(c)
10CFR50.90

SHEARON HARRIS NUCLEAR POWER PLANT
DOCKET NO. 50-400/LICENSE NO. NPF-63
STEAM GENERATOR REPLACEMENT
TECHNICAL SPECIFICATION AMENDMENT APPLICATION

Dear Sir or Madam:

In accordance with the Code of Federal Regulations, Title 10, Part 50.90, Carolina Power & Light Company (CP&L) hereby submits an application for an amendment to the Harris Nuclear Plant (HNP) Technical Specifications, Appendix A to Facility Operating License NPF-63. The proposed changes to the Technical Specifications support the replacement of the current HNP Westinghouse Model D4 steam generators with Westinghouse Model Delta 75 replacement steam generators (RSGs), which is planned to occur during the fall 2001 refueling outage.

The proposed changes to the Technical Specifications are required in part as a result of the physical differences between the currently installed Model D4 steam generators and the Model Delta 75 RSGs. The Model Delta 75 RSGs have thermally treated alloy 690 tube material which has been proven through laboratory testing and operational experience to provide increased corrosion resistance compared to the Inconel 600 tube material in the Model D4 steam generators. The replacement of the currently installed Model D4 steam generators with the Model Delta 75 RSGs will avoid corrosion and cracking of steam generator tubes similar to that experienced at other plants with similar model D steam generators.

CP&L has completed a comprehensive engineering review program in support of steam generator replacement (SGR) at HNP. This program evaluated the difference between the current Model D4 steam generators and the Model Delta 75 RSGs in conjunction with restoration of the original nominal reactor coolant average temperature (Tavg) of 588.8°F. The supporting analyses and evaluations were performed to support HNP operations with the RSGs at the current licensed core power of 2775 MWt and also, where possible, at an uprated core power level of 2900 MWt. This license amendment application, however, does not include a request for a power uprate. The analyses and evaluations of the nuclear steam supply system (NSSS) and balance of plant (BOP) systems, structures, and components demonstrate that the applicable acceptance criteria

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continue to be met. Note, however, the steam generator tube rupture (SGTR) analysis results that demonstrate margin to overfill for the Delta 75 steam generators are based on earlier operator action times than those assumed in the current SGTR analyses of record. Actual operator action times are subject to further verification.

CP&L has drawn upon the experience of Westinghouse Electric Company in support of other steam generator replacement projects at other nuclear power plants. In particular, the license amendment applications for the Joseph M. Farley Nuclear Plant (FNP) and the V.C. Summer Nuclear Station (VCSNS) were used as benchmark amendment applications for the HNP SGR. The VCSNS SGR amendment application was approved by the NRC to allow replacement of Model D3 preheater design steam generators, similar to the current Model D4 steam generators at HNP, with Model Delta 75 feeding-type steam generators. In order to facilitate NRC review and approval of this license amendment application, the enclosed licensing reports, which provide the technical basis for the proposed changes, also address NRC requests for additional information, licensee responses, and NRC safety evaluations associated with previous SGR license amendment applications and uprate programs.

A description of the license amendment application and the basis for the proposed Technical Specification changes are provided in Enclosure 1. In accordance with 10 CFR 50.91(a), the basis for the determination that the proposed changes to the Technical Specifications do not involve a significant hazards consideration is provided in Enclosure 2. CP&L has determined the proposed changes will not significantly increase the amount of any effluent that may be released offsite and there is no significant increase in individual or cumulative occupational radiation exposure resulting from these changes. A copy of these proposed changes is being sent to the North Carolina Department of Environment and Natural Resources (NCDENR) in accordance with 10 CFR 50.91 (b)(1).

Enclosure 3 provides an environmental evaluation which determines the proposed license amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental assessment or environmental impact statement is required for approval of this license amendment application.

Enclosure 4 provides page change instructions for incorporating the proposed changes to the Technical Specifications and Enclosure 5 provides the proposed Technical Specification marked-up and retyped pages. One additional Technical Specification change (Technical Specification 3.6.2.2.a), regarding spray additive tank limits, is anticipated based on analysis results and will be provided as a supplement to this submittal upon completion of the evaluation.

The technical bases for the proposed changes are provided in Enclosure 6, the Nuclear Steam Supply System (NSSS) Licensing Report, and Enclosure 7, the Balance of Plant (BOP) Licensing Report. The results of the analyses and evaluations presented in the

NSSS and BOP Licensing Reports demonstrate the applicable acceptance criteria continue to be met subsequent to implementation of the proposed changes. An analysis is currently being performed to confirm proposed minimum wall thickness and plugging criteria in accordance with Regulatory Guide (RG) 1.121, "Bases for Plugging Degraded PWR Steam Generator Tubes." In accordance with the RG 1.121 recommendation, a summary of the analysis will be provided upon completion.

The NSSS Licensing Report provided in Enclosure 6 is comprised of the NSSS analyses and evaluations performed by Westinghouse Electric Company (Westinghouse) and the NSSS safety analyses performed by Siemens Power Corporation (SPC). The description of analyses and evaluations provided by Westinghouse includes information considered proprietary to Westinghouse. Therefore, a non-proprietary version of the Westinghouse NSSS Licensing Report was used to develop the NSSS Licensing Report provided in Enclosure 6.

A copy of the proprietary and non-proprietary versions of the Westinghouse NSSS Licensing Report is provided as Enclosure 8 and Enclosure 9, respectively. (Items 1 and 2 below).

1. "Shearon Harris Nuclear Power Plant, Steam Generator Replacement/Uprate Analysis And Licensing Project, NSSS Licensing Report, WCAP-15398" (Proprietary)
2. "Shearon Harris Nuclear Power Plant, Steam Generator Replacement/Uprate Analysis And Licensing Project, NSSS Licensing Report, WCAP-15399" (Non-Proprietary)

The proprietary version of the Westinghouse NSSS Licensing Report is provided in order to assure that NRC has complete information for review purposes; the non-proprietary version is provided in order to facilitate NRC public docketing of the report without disclosure of the confidential Westinghouse proprietary information contained in the proprietary version of the report.

Also provided within Enclosure 8 is Westinghouse authorization letter CAW-00-1415 with accompanying affidavit, Proprietary Information Notice, and Copyright Notice.

As Item 1 above contains information proprietary to Westinghouse Electric Company, it is supported by an affidavit signed by Westinghouse, the owner of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b)(4) of Section 2.790 of the Code of Federal Regulations.

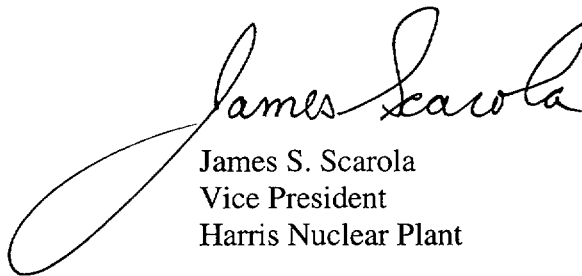
Accordingly, CP&L respectfully requests that the information proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.790 of the Code of Federal Regulations.

Correspondence with respect to the copyright or proprietary aspects of the items listed above or the supporting Westinghouse Affidavit should reference CAW-00-1415 and should be addressed to H. A. Sepp, Manager, Regulatory And Licensing Engineering, Westinghouse Electric Company, LLC, P.O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

CP&L requests NRC review and approval of the proposed license amendment by September 1, 2001 to support unit restart from refueling outage 10 scheduled to begin in September 2001.

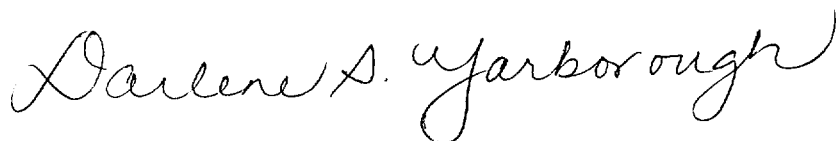
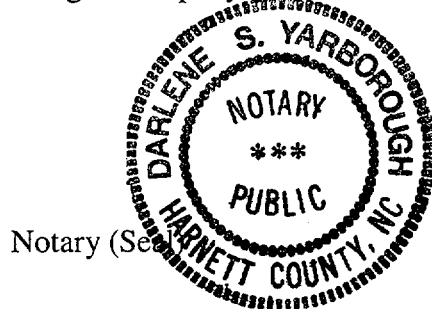
Please refer any questions regarding the enclosed information to Mr. Eric McCartney at (919) 362-2661.

Sincerely,



James S. Scarola
Vice President
Harris Nuclear Plant

James Scarola, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge, and belief, and the sources of his information are employees, contractors, and agents of Carolina Power & Light Company.



My commission Expires: 2-21-2005

KWS/kws

Enclosures:

1. Basis for change request
2. No Significant Hazards Consideration Determination (10 CFR 50.92)
3. Environmental Evaluation (10 CFR 51.22)
4. Technical Specification Page Change Instructions
5. Technical Specification Changes
6. NSSS Licensing Report
7. BOP Licensing Report
8. "Shearon Harris Nuclear Power Plant, Steam Generator Replacement/Uprate Analysis And Licensing Project, NSSS Licensing Report, WCAP-15398" (Proprietary).
9. "Shearon Harris Nuclear Power Plant, Steam Generator Replacement/Uprate Analysis And Licensing Project, NSSS Licensing Report, WCAP-15399" (Non-Proprietary)

c: (all w/attachments)

Mr. J. B. Brady, NRC Senior Resident Inspector
Mr. Mel Fry, N.C. NCDENR
Mr. R. J. Laufer, NRC Project Manager
Mr. L. A. Reyes, NRC Regional Administrator - Region II

bc:

Ms. D. B. Alexander
Mr. K. B. Altman
Mr. G. E. Attarian
Mr. R. H. Bazemore
Mr. L. R. Beller (BNP)
Mr. C. L. Burton
Mr. S. R. Carr
Mr. J. R. Caves
Mr. H. K. Chernoff (RNP)
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Mr. W. J. Flanagan
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Mr. K. N. Harris

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Mr. W. J. Hindman
Mr. C. S. Hinnant
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Mr. B. A. Kruse
Mr. R. D. Martin
Mr. T. C. Morton
Mr. J. H. O'Neill, Jr., Esq.
Mr. W. M. Peavyhouse
Mr. M. A. Pope
Mr. J. M. Taylor
Nuclear Records
Harris Licensing File(s) (2 copies)